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Heins

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(54) **GENERATOR AND IMPROVED COIL THEREFOR HAVING ELECTRODYNAMIC PROPERTIES**

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See application file for complete search history.

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(57) **ABSTRACT**

The present invention relates to electrical generators and, in particular, to improvements to efficiency in electromechanical energy conversion in electrical generators and electric motors. The regenerative acceleration generator coil according to the present invention takes advantage of the structure of a high impedance multiple-loop salient pole winding or low impedance bi-filar windings to create a positive armature (accelerative) reaction rather than a negative (decelerative) reaction as exhibited by prior art generators which only have low impedance multiple loops of wire making up their rotor armature. The generator of the present invention reverses these negative effects by delaying current flow in the coil until the rotating magnetic field reaches TDC.

20 Claims, 11 Drawing Sheets

